AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1 (Original): A method for processing an image in a printer capable of printing a two-color image, comprising the steps of:

setting a primary color and a secondary color as printable colors in the printer;

receiving an original image; and

producing color difference values associated with the primary color, the secondary color and a white color on an original image pixel-by-pixel basis, and converting a corresponding pixel color of the original image into the primary, secondary or white color associated with a smallest color difference value.

2 (Original): The method as set forth in claim 1, wherein the color converting step comprises the steps of:

on the pixel-by-pixel basis, calculating a first color difference value $\Delta Col1$ between the corresponding pixel color of the original image and the primary color according to the equation $\Delta Col_1 = |R_0-R_1| + |G_0-G_1| + |B_0-B_1| - Vcb$, calculating a second color difference value $\Delta Col2$ between the corresponding pixel color of the original image and the secondary color according to the equation $\Delta Col_2 = |R_2-R_0| + |G_2-G_0| + |B_2-B_1| - Vcs$, and calculating a third color difference value ΔCol_3 between the corresponding pixel color of the original image and the white color according to the equation $\Delta Col_3 = |255-R_0| + |255-G_0| + |255-B_0|$, wherein R_0, G_0 and B_0 are RGB values of the corresponding pixel color of the original image, R_1, G_1 and B_1 are RGB values of the primary color, R_2, G_2 and B_2 are RGB values of the secondary color, values of 255 are RGB values of the white color, *Vcb* is a weight value for the primary color, *Vcs* is a weight value for the secondary color, and the weight values *Vcb* and *Vcs* are arbitrarily set; and

converting the corresponding pixel color into a conversion color associated with the smallest color difference value of the calculated color difference values $\Delta Col1$, $\Delta Col2$ and $\Delta Col3$.

3 (Original): The method as set forth in claim 1, wherein the color converting step comprises the steps of:

setting an arbitrary color to a boundary color;

on the pixel-by-pixel basis, calculating a first color difference value $\Delta Col1$ between the corresponding pixel color of the original image and the primary color according to the equation $\Delta Col_1 = |R_0\text{-}R_1| + |G_0\text{-}G_1| + |B_0\text{-}B_1| - Vcb$, calculating a second color difference value ΔCol_2 between the corresponding pixel color of the original image and the secondary color according to the equation $\Delta Col_2 = |R_{th}\text{-}R_0| + |G_{th}\text{-}G_0| + |B_{th}\text{-}B_0| - Vcs$, and calculating a third color difference value ΔCol_3 between the corresponding pixel color of the original image and the white color according to the equation $\Delta Col_3 = |255\text{-}R_0| + |255\text{-}G_0| + |255\text{-}B_0|$, wherein R_0, G_0 and B_0 are RGB values of the corresponding pixel color of the original image, R_1, G_1 and B_1 are RGB values of the primary color, R_{th}, G_{th} and B_{th} are RGB values of the boundary color, values of 255 are RGB values of the white color, *Vcb* is a weight value for the primary color, *Vcs* is a weight value for the secondary color, and the weight values *Vcb* and *Vcs* are arbitrarily set;

comparing the calculated color difference values and producing the smallest color difference color; and

converting the corresponding pixel color into the primary color if the first color difference value ΔCol_1 is smallest, converting the corresponding pixel color into the secondary color if the second color difference value ΔCol_2 is smallest, and converting the corresponding pixel color into the white color if the third color difference value ΔCol_3 is smallest.

4 (Original): The method as set forth in claim 1, further comprising the step of:

converting the received original image into a bitmap image before the color converting step is carried out.

5 (Currently Amended): The method as set forth in claim 2~~ or 3~~, wherein the color converting step comprises the step of:

deciding a conversion color according to priorities in order of the primary, secondary and white colors if two or more of the first, second and third color difference values correspond to the smallest color difference value as a result of the comparison.

6 (Currently Amended): The method as set forth in claim 2~~ or 3~~, wherein the weight value for the primary color is set to be large if a ratio of the primary color is desired to be increased in the two-color image, and wherein the weight value for the secondary color is set to be large if a ratio of the secondary color is desired to be increased in the two-color image.

7 (New): The method as set forth in claim 3, wherein the color converting step comprises the step of:

deciding a conversion color according to priorities in order of the primary, secondary and white colors if two or more of the first, second and third color difference values correspond to the smallest color difference value as a result of the comparison.

8 (New): The method as set forth in claim 3, wherein the weight value for the primary color is set to be large if a ratio of the primary color is desired to be increased in the two-color image, and wherein the weight value for the secondary color is set to be large if a ratio of the secondary color is desired to be increased in the two-color image.